

Irradiating Ice Cream

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This article discusses experiments performed in the attempt to irradiate ice cream, which attempts were successful. Reference is made to the technical aspect of the experiments which are reprinted in the Journal series paper of New Jersey Agricultural Experiment Station, Department of Agricultural Biochemistry and Dairy Husbandry.

Reference is also made to an article by Dr. Hugo Bach on "Irradiated Milk for Babies" a translation of which article is found in the June, 1928 issue of Certified Milk. In this article, a new and improved process is described which makes it possible, in the absence of oxygen, to irradiate market milk. An atmosphere of carbon dioxide is employed in this new process.

The experiments with relation to the irradiation of ice cream mixes were begun in October, 1927, and were concluded in April, 1928. The study was biological in nature and the technique consisted essentially in feeding young rats a ration deficient in one constituent, vitamin D, and in attempting to heal the rachitic condition thus produced by means of irradiated ice cream mixes. Thin films of the ice cream mix were exposed to the radiant energy generated by the quartz mercury vapor burner of a Cooper Hewitt Uviarc Poultry Treater Lamp for varying lengths of time, and at varying distances from the foods undergoing treatment.

Freezing and low temperature storage apparently do not affect the antirachitic value of sufficiently irradiated ice cream for several months. A four months storage resulted in very little deterioration.

Where irradiation treatment was carried on for too long a period of time, the product took on a fishy odor and taste, but by adding chocolate, this disagreeable odor and taste was successfully masked.

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